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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,701

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Paul Caron

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EXAMINER

HENDRICKSON, STUART L

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,701	Applicant(s) CARON ET AL.	
	Examiner Stuart Hendrickson	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/18/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-5, 7-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) In claim 1, section a) in its entirety is not clear; especially what 'upwardly delimited' and 'thermal path' mean.

B) Claim 1 part c) is unclear as to what is actually done.

Applicant should provide references alluded to on specification pages 3-7.

The claims are so unclear that a meaningful search and application of the prior art is not possible, however the following is offered for the sake of completeness:

Claims 1, 2, 5, 7, 11, 12, 14, 15, 17, 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rudy 4066451. Rudy teaches in col. 7 and 10 in particular melting tungsten carbide and re-solidifying it. See example L in table 3 and compare to present specification. Cast carbide is explicitly recited. No difference is seen in the product since the process steps are the same as claimed.

Claims 1, 2, 7, 8, 12, 17, 18 are rejected under 35 U.S.C. 103(a) as obvious over Moustakas 4804583 taken with Rudy.

The '583 reference teaches, especially in col. 2, irradiating a tungsten carbide target to vaporize it ('subjecting to homogenization') and depositing it as a solid on a substrate ('quenching to freeze'). Step a is met because tungsten carbide inherently has the same phase diagram. '583 does not use 'cast' carbide. Rudy teaches it, and using cast carbide in the '583 process is an obvious expedient to provide a carbide source. No difference is seen in the product since the process steps are the same as claimed.

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Claims 1, 3-5, 7-10, 12, 13, 17-21 are rejected under 35 U.S.C. 103(a) as obvious over Kruse et al. pg pub. taken with Rudy.

Kruse teaches, especially in ex. 1, grinding (thus homogenizing) tungsten carbide. While the shape is not disclosed, using oddly shaped particles (if not done by the reference) is an obvious expedient to convert them to an usable form. Kruse also does not teach 'cast' carbide. . Rudy teaches it, and using cast carbide in the Kruse process is an obvious expedient to provide a carbide source. No difference is seen in the product since the process steps are the same as claimed.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 17 and 18 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Christian et al. 6551569.

The reference teaches in col. 2-3 FCC WC1-x. Even though the identical process is not taught, no differences are seen.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunmead et al. 5746803.

Dunmead teaches, especially in col. 5 and 13, WC alloyed with metals such as Nb. From the carbon content reported, it appears near stoichiometric (the 1-x subscript is met). The amount and identity of the alloying metal is an obvious expedient to optimize the properties of the product, as per the Dunmead teachings.

Applicant's arguments filed 5/18/09 have been fully considered but they are not persuasive. The claims do not require a temperature of 2600 degrees. Present fig. 1 shows that

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at 1150 degrees (Rudy's temperature) only one phase exists. So Rudy meets the claims. The arguments are confusing. All phase diagrams are always equilibrium, so it is not clear what has been changed. And they are inherent properties too.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (571) 272-1351.

/Stuart Hendrickson/
Primary examiner Art Unit 1793